UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

November 17, 2008

Reply to
Attn. of: ETPA-088

Ref: 05-016-AFS

Mr. Rolando R. Mendez
Acting District Ranger
Crescent Ranger District
P.O. Box 208
Crescent, OR 97733

Dear Mr. Mendez:

EPA has reviewed the Draft Environmental Impact Statement (EIS) for the **BLT Project** (CEQ No. 20080388) in the Crescent Ranger District, Deschutes National Forest, Klamath County, Oregon. These comments are provided in accordance with our responsibilities and authorities under the Clean Air Act §309 and the National Environmental Policy Act (NEPA).

The Draft EIS analyzes proposed vegetation management activities within the Upper Little Deschutes 5th field watershed of the Deschutes National Forest, which totals about 80,072 acres. Alternative B is the proposed action and the preferred alternative. Alternative B would include a number of vegetation management activities across 7,499 acres, including the harvest or 12.1 million board feet (MBF) of timber: (1) improvement cutting in lodgepole pine to enhance overall stand composition and quality (3,614 acres); (2) understory thinning to favor larger trees with healthy foliage (3,550 acres); (3) small diameter thinning and fuels reduction (312 acres); (4) prescribed fire to maintain or enhance fire dependent ecosystems (2,312 acres); and (5) opportunity for utilization of forest products, such as posts, poles and firewood. In addition, 22 miles of closed Maintenance Level 1 roads would be opened to allow timber hauling and other activities (roads would be closed following implementation). Road maintenance would be performed on about 160 miles of Maintenance Level 1 and 2 roads. About 9.7 miles of temporary roads would be constructed to facilitate economical timber harvest removal. These roads would be obliterated following implementation and restored to a condition that is hydrologically functional and able to revegetate more quickly.

EPA has assigned a rating of "EC-2" (Environmental Concerns – Insufficient Information) to the Draft EIS due to concerns about potential impacts to air and water quality. We recommend that additional information be included in the Final EIS regarding air quality impacts and emissions resulting from prescribed fire treatments. Additional recommendations are included in the enclosed detailed comments. A copy of EPA's rating system criteria used in conducting our environmental review can be found at: http://www.epa.gov/Compliance/nepa/comments/ratings.html. This rating and a summary of our comments will be published in the *Federal Register*.

EPA appreciates the opportunity to review and provide comments on the Draft EIS for the BLT Project in the Crescent Ranger District, Oregon. If you have any questions regarding this letter, please do not hesitate to contact Mark Jen of my staff at (907) 271-3411 or jen.mark@epa.gov.

Sincerely,

/s/

Christine Reichgott, Manager
NEPA Review Unit

Enclosure

EPA Region 10 Detailed Comments on the Draft Environmental Impact Statement for the BLT Project
Crescent Ranger District, Deschutes National Forest, Klamath County, Oregon

Air Quality and Visibility

The Draft EIS indicates that the BLT analysis area is considered to be in attainment of the National Ambient Air Quality Standards (NAAQS) for Class II airsheds of the BLT area. The Draft EIS incorporates a First Order Fire Effects Model (FOFEM) to predict and plan for fire effects. The FOFEM computer model provided estimates for fire pollutant emissions (pounds per acre and total per tons) for each alternative (Tables 3-110 to 3-113). However, the Draft EIS does not disclose the location of air monitoring stations, ambient air quality information, atmospheric data, and assumptions that were used in the analysis of fire emissions. We believe that the computer modeling of prescribed fire emissions should be verified with actual ambient air quality monitoring information during prescribed fire treatments to ensure attainment of NAAQS for Class II airsheds.

We recommend that the Final EIS disclose the ambient air quality data, atmospheric information, and other parameters and assumptions used in the FOFEM that generated the fire emission results for each alternative. The Final EIS should identify the location of the nearest ambient air quality monitoring station(s) within or outside the BLT project area. If there are no representative monitoring stations available, then additional measures should be taken to ensure that a representative monitoring program is in place prior to initiating prescribed fire treatments. The Final EIS should include information that demonstrates monitors are approved for measuring NAAQS, can measure particulate matter in real time and that sufficient background monitoring is performed to accurately predict if a prescribed treatment would not exceed the NAAQS. If the monitoring results indicate that NAAQS would be exceeded, then fire treatments should be postponed.

The Oregon Smoke Management Plan identifies Diamond Peak Wilderness area as a Class I airshed (Page 345). The Draft EIS does not evaluate whether the prescribed fire treatments would be implemented in attainment of the NAAQS for a Class I airshed and would be consistent with the Oregon Visibility Protection Plan and the Oregon Regional Haze Plan.

The Final EIS should discuss how the prescribed fire treatments would meet the visibility requirements of the Class I areas of the Diamond Peak Wilderness. Mitigation measures should be included to ensure that Class I areas are appropriately protected and is consistent with air quality plans. The Final EIS should identify appropriate monitoring requirements to ensure that visual impacts are minimized.

Health Impacts

The prescribed fire treatments may result in adverse effects to human health. The Draft EIS estimates that approximately 75,000 people live in the surrounding communities of Bend, Sunriver, La Pine, Crescent Gilchrist, and Crescent Lake Junction. A percentage of the

permanent residents of Klamath County is considered low-income, an Environmental Justice community under E.O. 12898.

The Draft EIS indicates that five toxins most commonly found in prescribed fire smoke include particulate matter, acrolein, formaldehyde, carbon monoxide, and benzene, which is known to be a carcinogen (Page 332). The presence of certain types of toxins in prescribed fire smoke may suggest that chemicals would be used in the prescribed fire treatments. However, the Draft EIS does not discuss and disclose the types of chemicals that may be used during implementation of prescribed fire treatments.

We recommend that if chemical treatments are being considered for use as treatments, then the FEIS should identify what chemicals would be used and analyze the direct, indirect, and cumulative effects to public health and wildlife. In particular, the EIS should disclose the potential acute and chronic impacts these chemicals may pose. The Final EIS should include requirements for the development of monitoring plans to assess the acute and chronic chemical treatment impacts from the management activities.

Potential effects of fire treatments may be of particular concern to vulnerable sectors of the human population. Infants and older adults with breathing ailments may experience difficulty during periods of prescribed burn, especially during atmospheric conditions that do not allow for dispersion of smoke.

There is growing concern that EJ communities may be more vulnerable to pollution impacts than other communities. Environmental Justice communities are potentially experiencing more health impacts than would be predicted using traditional risk assessment. Consistent with NEPA and the goals of E.O. 12898, if human health could be impacted by the proposed project, it would be beneficial to use a screening process to determine which aspects of human health could be impacted. Depending on the results of the screening, an analysis may need to be conducted in order to determine the direct, indirect, and cumulative impacts to human health.

We recommend that the Final EIS include a discussion of the potential health effects resulting from the prescribed fire treatments and other vegetation management activities. A screening process should be conducted to determine which aspects of human health could be impacted. The USFS should partner with local, state, and federal health departments to conduct the appropriate analysis, and to determine appropriate and effective mitigation measures to address potential adverse health impacts.

Climate Change

Climate change is a growing global concern. The Draft EIS provides a good discussion of how increasing temperatures and long-term climate change would alter predicted forest response to the proposed commercial thinning resulting from the proposed action. We believe that the EIS should also consider how prescribed fire treatments and other project activities would contribute to greenhouse gas emissions.

We recommend that the Final EIS estimate the quantities of greenhouse gas emissions resulting from mobile and non-mobile sources during project implementation. As appropriate, mitigation measures for direct sources of greenhouse gas emissions should be considered.

Road Planning and Closure

We believe that the Final EIS should provide additional information regarding the design, construction, and obliteration of the temporary roads. Road construction activities can accelerate erosion and can contribute to excessive amounts of sediment to streams, particularly if work is done in areas with 20 percent or greater side slopes. Roads and its associated uses contribute more sediment to streams than any other management activity by interrupting the subsurface flow. In particular, culverts in roads to accommodate drainage and stream crossings can represent a source of erosion and sedimentation. The type of culvert, number and size, and the placement and location are all factors that could minimize downstream impacts to surface water quality. Removal of the road prism and culverts would minimize long term erosion and water quality concerns after timber harvesting activities have ceased.

We recommend that the Final EIS describe the approximate dimensions (width and height) of the temporary roads, and the type, number, size, and location of culverts along the roadbed. Best Management Practices (BMPs) should be implemented during road construction and operation to control erosion and sedimentation and down slope impacts. The Final EIS should also discuss how temporary forest roads would be obliterated, culverts removed, and the area restored to a hydrologically functional condition. The Final EIS should include a commitment to field monitor the temporary roads during construction, operation, and road closure to ensure the BMPs are effective. Corrective actions should be taken in the event of road failures and excessive erosion and sedimentation. The ROD should include a commitment to develop a road design and construction plan and a road closure plan.